Tennessee Pollution Prevention Partnership Success Story



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Automated Bulk System Saves Chemicals

The Member

Frito-Lay Fayetteville, a PepsiCo Company production facility is located in Lincoln County, Fayetteville, TN. This manufacturing facility has been in operation since 1997 producing salty snacks. The Fayetteville facility is a local employer of choice and has 500 highly trained team members who work diligently everyday to deliver quality products to our customers. Frito-Lay is committed to conducting its business operations in a manner that is consistent with concern and respect for our fragile environment. Toward this end, operational decisions reflect our strong belief in sound environmental management and conservation, as we faithfully seek to comply with all federal, state, and local environmental laws, rules, and regulations. Frito Lay is continually working on new resource conservation projects. This is done with a wide range of employee involvement in the Resource Conservation program. Regardless of the size of the projects, they are all taken seriously because small conservations add up to make a huge impact on reducing our resource usages.

The Story

In the food industry, the need for sanitation of processing lines requires the use of sanitation chemicals in large quantities. In the past chemicals were purchased in 55-gallon drums (barrels) and manually pumped by sanitation technicians. The sanitation team determined that this method needed to be upgraded because reducing chemical usage was a main goal for the Fayetteville site. With an automated bulk system, all chemicals are automatically pumped for each job in the correct amounts, while eliminating overuse of chemical and the spillage created by manually pumping the chemicals.

The facility has also gained on eliminating hazardous waste by substituting products in the machine maintenance department that previously contained

chlorinated solvents. These were aerosol degreasers/cleaners that have been replaced by a different product containing no chlorinated solvents.

The Success

Frito-Lay has reduced the amount of sanitation chemicals that are overused and wasted by utilizing a system that dispenses an accurate amount of the required chemical. The system also tracks who used which chemicals and where those chemicals were used. This system takes human error out of the equation. Along with being accurate, the system is safer for the team members to use since all of the manual pumping has been eliminated.

Additionally, degreasers that contained chlorinated solvents were substituted with more environmentally friendly products to successfully remove a hazardous waste stream from the plant.

The Pollution Prevented

Facility records show a 10% reduction (915 gallons) in sanitation chemical usage from March 1 through June 1, 2008. This 3-month (quarterly) reduction would correspond to a yearly reduction of 3660 gallons achieved by the automated bulk chemical dispensing system. There has also been more than a forty percent reduction in the number of 55-gallon drums (barrels) delivered to the plant (250 fewer barrels/year). This change has also reduced water use at the plant because there is not a need to triple rinse each barrel prior to shipment. Additionally, the site no longer has to recycle/dispose of these barrels.

The elimination of 22.5 lbs/year of chlorinated solvents is a huge win for the plant. Since most are known carcinogens, employees are no longer exposed to these chemicals, and a hazardous waste stream has been removed from the site.